



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,232	08/24/2001	William Joseph Armstrong	IBM / 182	4082
26517 7590 04/01/2008 WOOD, HERRON & EVANS, L.L.P. (IBM) 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202				
EXAMINER PROCTOR, JASON SCOTT				
ART UNIT		PAPER NUMBER		
2123				
MAIL DATE		DELIVERY MODE		
04/01/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/939,232

Applicant(s)

ARMSTRONG ET AL.

Examiner

Jason Proctor

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 and 21 is/are allowed.
- 6) ☒ Claim(s) 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 7/12/2007

DETAILED ACTION

Claims 1-19 and 21 were rejected in the Final Office Action entered on 15 February 2006. Applicants appealed that rejection on 8 September 2006. The Board of Patent Appeals and Interferences filed a decision on 7 March 2008.

Claims 1-18 and 21 are allowable in view of the 7 March 2008 Board decision.

Claim 19 is rejected.

Claim Rejections – 35 USC § 101

35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claim 19 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 19 recites a “program product” and a “tangible signal bearing medium bearing the first program”. Interpreting this claim in light of the specification and current USPTO practice, this claim encompasses nonstatutory transmission signals. The specification describes “signal bearing media” as including “transmission type media such as digital and analog communications links” (Specification, page 11, lines 6-11). When a claim is broad enough to read on statutory and non-statutory subject matter, USPTO policy is to reject the claims as non-statutory.

The Examiner respectfully suggests amending the last line of claim 19 to read, “(b) a recordable medium containing said program.” to overcome this rejection. This amendment

Art Unit: 2123

would find support in the specification at page 11 and would exclude from the scope of invention the non-statutory "transmission type media".

Allowable Subject Matter

2. Claims 1-18 and 21 are allowed in view of the Board decision in this application. The subject matter of claim 19 is allowable in view of the Board decision, but stands rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Conclusion

An updated search of the prior art has revealed the following references relevant to the presently claimed invention. These references are not applied under 35 U.S.C. §§ 102 or 103. These references are cited on the attached PTO-892.

US Patent No. 7,251,814 claims a similar yielding strategy applied to threads (see abstract; claim 1).

US Patent No. 6,269,391 discloses a yielding strategy for scheduling virtual machines (abstract). This patent further discloses that "A group of threads may sometimes be referred to as a task, a process, application, virtual machine, or the like." (column 3, lines 31-34).

US Patent No. 5,640,584 discloses terminology used in the art by stating that "In the current invention, each thread is encapsulated in an operating environment termed a Virtual Processor (vproc)" (column 1, lines 64-66).

US Pregrant Publication 2005/0108711 teaches a "YIELD instruction inserted into a thread (virtual processor)" (abstract).

"Pthreads Overview (for LC)" teaches that "The mapping of user threads to kernel threads occurs by means of a pthreads-library implicit entity called a "virtual processor" (VP), which acts for a user thread the way that a real CPU acts for a kernel thread."

"HP OpenVMS Systems" teaches that "Given that you understand two-level scheduling and virtual processors, then answering your first question is easy: from your perspective, a "kernel thread" is a virtual processor."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

jsp

/Paul L Rodriguez/
Supervisory Patent Examiner, Art Unit 2123